

## WHAT IS CLAIMED IS:

1. A multi-well plate assembly having a well plate with a plurality of upwardly open wells, each said well having a substantially square cross-section with pairs of adjacent walls defining pairs of opposed corners in each said well, an insert plate nested with said well plate, said insert plate having a top wall for substantially covering all of said wells of said well plate, said top wall being formed with a plurality of inserts aligned respectively with said wells, each said insert having a sidewall projecting down from said top wall and being substantially nested in one said corner of said well, a plurality of access ports aligned respectively with said wells, each said access port being substantially adjacent a corner of said well opposite said corner in which said insert sidewall is nested, said access port including a first portion formed through said top wall and a second portion defining a notch formed in said sidewall of said insert adjacent said top wall of said insert plate.

2. The multi-well plate assembly of Claim 1, further comprising a cover nested over said insert plate.

3. The multi-well plate assembly of Claim 1, wherein each said well has a bottom wall, and wherein said sidewall of each said insert is spaced from said bottom wall of said respective well.

4. The multi-well plate assembly of Claim 3, wherein each said insert further comprises a porous membrane secured to said bottom of said sidewall.

5. The multi-well plate assembly of Claim 4, wherein each said insert includes an inwardly convex and outwardly region portion aligned with said notch of said access port, whereby a pipette can be inserted at least partly into said access port and said outwardly concave portion of said sidewall.

6. The multi-well plate assembly of Claim 1, wherein portions of said access port formed on said top wall of said insert plate are chamfered downwardly and inwardly toward said respective well.

7. The multi-well plate assembly of Claim 6, wherein portions of said access port defined by said notch are chamfered downwardly and inwardly into said respective well.

8. The multi-well access port of Claim 3, wherein said sidewall of each of said inserts is disposed substantially tangent to two of said adjacent walls defining one of said corners of said respective well.

9. The multi-well plate assembly of Claim 8, wherein each of said access ports is aligned substantially tangent to two of said adjacent walls defining one of said corners of said well opposite said corner in which said sidewall of said insert is nested.

10. The multi-well plate assembly of Claim 3, wherein the bottom wall of each said well is sloped, such that said well has a deep corner and a shallow corner, said insert being nested in said shallow corner of said well.

11. A multi-well plate assembly comprising:

a plate having a top surface and a plurality of well components;

said well components each having an upper portion, a lower chamber, and a sidewall extending between said upper portion and said lower chamber and said upper portion having an upper chamber and an access port;

a membrane separating said upper chamber from said lower chamber; and

said access port including a first portion formed through said top surface and a second portion defining a step formed with said sidewall.

12. A multi-well plate assembly comprising:
- a plate having a top surface and a plurality of well components;
  - said well components each having an upper portion, a lower chamber, and a sidewall extending between said upper portion and said lower chamber;
  - said upper portion having an upper chamber and at least two access ports;
  - a membrane separating said upper chamber from said lower chamber; and
  - said access ports each including a first portion formed through said top surface and a second portion defining a step formed with said sidewall.